

# SEQUENCE LISTING

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Cognetix, Inc.

## <120> Uses of Kappa-Conotoxin PVIIA

<130> Kappa-PVIIIA

<140>

<141>

<150> US 60/219,438

<151> 2000-07-20

<150> US 60/155,135

<151> 1999-09-22

<160> 25

<170> PatentIn Ver. 2.0

 $\langle 210 \rangle$  1

<211> 27

<212> PRT

<213> *Conus purpurascens*

 $\langle 220 \rangle$ 

<221> PEPTIDE

<222> (1) . . (27)

<223> Xaa at residue 2, 7, 18, 19, 22 and 25 may be Arg, homoarginine, ornithine, Lys, N-methyl-Lys, N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any synthetic basic amino acid, His or halo-His; Xaa at residue

 $\langle 220 \rangle$ 

<221> PEPTIDE

<222> (1) . . (27)

<223> 4 may be Pro or Hyp; Xaa at residue 9 and 23 may be Phe, Tyr, meta-Tyr, ortho-Tyr, nor-Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr, nitro-Tyr, Trp (D or L), neo-Trp,

 $\langle 220 \rangle$ 

<221> PEPTIDE

$\langle 222 \rangle$  (1) . . (27)

<223> halo-Trp (D or L) or any synthetic aromatic amino acid; Xaa/at residue 11 is His or halo-His

 $\langle 400 \rangle$  1

Cys Xaa Ile Xaa Asn Gln Xaa Cys Xaa Gln Xaa Leu Asp Asp Cys Cys  
1 5 10 15

Ser Xaa Xaa Cys Asn Xaa Xaa Asn Xaa Cys Val  
20 25

 $\langle 210 \rangle$  2/

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<220>
<221> PEPTIDE
<222> (1)..(27)
<223> Xaa is Hyp
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Ser Ala Lys Cys Asn Arg Phe Asn Lys Cys Val  
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<220>  
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<222> (1)..(27)  
<223> Xaa is Hyp
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Ser Arg Lys Cys Asn Ala Phe Asn Lys Cys Val  
20 25

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<220>
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<222> (1)..(27)
<223> Xaa is Hyp
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Ser Arg Lys Cys Asn ~~Arg~~ Phe Asn Lys Cys Val  
20 25

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<220>
<221> PEPTIDE
<222> (1)..(27)
<223> Xaa is Hyp
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INS  
AI

[illegible]

Ser Arg Ala Cys Asn Arg Phe Asn Lys Cys Val  
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<210> 6
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<212> PRT
<213> Conus purpurascens
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<220>  
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<222> (1)..(27)  
<223> Xaa is Hyp
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<400> 6  
Cys Ala Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
1 5 10 15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
20 25 /

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<212> PRT
<213> Conus purpurascens
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<220>
<221> PEPTIDE
<222> (1) .. (27)

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<400> 7  
Cys Arg Ile Xaa Asn Gln Lys Cys Ala Gln His Leu Asp Asp Cys Cys  
1 5 10 15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
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<210> 8  
<211> 27  
<212> PRT  
<213> Conus purpurascens

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<220>
<221> PEPTIDE
<222> (1)..(27)
<223> Xaa is Hyp
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<400> 8  
Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
1 5 10 15

Ser Arg/Lys Cys Asn Arg Phe Asn Ala Cys Val  
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<210> 9
<211> 27
<212> PRT
<213> Conus purpurascens
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~~<400> 12  
Cys Arg Ile Xaa Asn Gln Lys Cys Tyr Gln His Leu Asp Asp Cys Cys  
1 5 10 15  
Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
20 25~~

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<220>  
<221> PEPTIDE  
<222> (1)..(27)  
<223> Xaa is Hyp
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<400> 13  
Cys Gln Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
1 5 10 15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
20 25

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<213> Conus purpurascens
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<222> (1)..(27)
<223> Xaa is Hyp
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<400> 14  
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1 5 10 15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
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<220>
<221> PEPTIDE
<222> (1) .. (27)
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<400> 15  
Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Ala Cys Cys  
1 5 10 15

Ser Arg Lys Cys Asn Arg/Phe Asn Lys Cys Val  
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<210> 16  
<211> 27  
<212> PRT  
<213> Conus purpurascens

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<220>
<221> PEPTIDE
<222> (1)..(27)
<223> Xaa is Hyp
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Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
20 25

<213> Conus purpurascens

<223> Xaa is Hyp

Ser Arg Lys Cys Ala Arg Phe Asn Lys Cys Val  
20 25

<213> *Conus purpurascens*

<223> Xaa is Hyp

Ala Arg Lys Cys Asn Arg Phe Asn ~~Lys~~ Cys Val  
20 25

<213> *Conus purpurascens*

<223> Xaa is Hyp

Ser Arg Lys Cys Asn/Arg Phe Ala Lys Cys Val  
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<211> 27

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<221> PEPTIDE
<222> (1) .. (27)
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<400> 20  
Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Ala Asp Asp Cys Cys  
1 5 10 15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
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<210> 21
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<212> PRT
<213> Conus purpurascens
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<221> PEPTIDE  
<222> (1)..(27)  
<223> Xaa is Hyp
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<400> 21  
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1 5 10 15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
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<210> 22
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<212> PRT
<213> Conus purpurascens
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<220>
<221> PEPTIDE
<222> (1)..(27)
<223> Xaa is Hyp
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<400> 22  
Cys Arg Ile Xaa Asn Gln Lys Cys Phe Ala His Leu Asp Asp Cys Cys  
1 5 10 15

Ser Arg Lys Cys Asn Arg Phe / Asn Lys Cys Val  
20 25

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<210> 23
<211> 27
<212> PRT
<213> Conus purpurascens
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<220>
<221> PEPTIDE
<222> (1)..(27)
<223> Xaa is Hyp
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<400> 23  
Cys Arg Ile Xaa Asn Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
1 5 10 15

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<210> 24
<211> 27
<212> PRT
<213> Conus purpurascens
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Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys/Val  
20 25

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<210> 25
<211> 27
<212> PRT
<213> Conus purpurascens
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<220>
<221> PEPTIDE
<222> (1)..(27)
<223> Xaa is Hyp
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<400> 25  
Cys Arg Ile Xaa Ala Gln Lys Cys Phe Gln His Leu Asp Asp Cys Cys  
1 5 10 15

Ser Arg Lys Cys Asn Arg Phe Asn Lys Cys Val  
20 25

[illegible]